SOUND DEVICES

USBPre 2

User Guide and Technical Information

Sound Devices, LLC
300 Wengel Drive • Reedsburg, WI • USA
+1 (608) 524-0625 • fax: +1 (608) 524-0655
Toll-Free: (800) 505-0625
www.sounddevices.com
support@sounddevices.com

Table of Contents

Table of Contents 1
Computer System Requirements 2
Quick Start Guide 3
Sound Card Connection 3
Front Panel Descriptions 5
Input and Output Panel Descriptions 6
Back Panel Descriptions 6
DIP Switch Options 7
Mac OS Installation and Connection 8
OS X Audio / MIDI Setup 8
Adjusting Sample Rate in OS X 8
Windows Installation and Connection 9
Windows 7 and Vista Sound Control Panel 9
Adjusting Sample Rate in Windows 7 and Vista 10
Windows XP Sound Control Panel 11
Inputs 12
Input Source Selection 12
Microphone Inputs 12
Phantom Power 12
Low-Cut Filter 12
Input Pad 13
Input Limiters 13
Line Inputs 13
Aux Inputs 13
Digital Inputs 13
Loop Source (Input 2) 13
Outputs and Monitoring 14
Headphone Output 14
Main Outputs 14
Digital Outputs 14
Metering 14
Stand-Alone Mode 15
Sample Rate 15
Setup Examples 16
Test and Measurement 16
High Performance Playback 17
Block Diagram 18
Specifications 19
Warranty and Technical Support 20
CE Declaration of Conformity 21

Copyright and Release

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the expressed written permission of SOUND DEVICES, LLC. SOUND DEVICES is not responsible for any use of this information.

SOUND DEVICES, LLC shall not be liable to the purchaser of this product or third parties for damages, losses, costs, or expenses incurred by purchaser or third parties as a result of: accident, misuse, or abuse of this product or unauthorized modifications, repairs, or alterations to this product, or failure to strictly comply with SOUND DEVICES, LLC's operating and installation instructions.

Microsoft Windows is a registered trademark of Microsoft Corporation. Macintosh is a registered trademark of Apple, Inc. Other product and company names mentioned herein may be the trademarks of their respective owners.

The sound waves logo is a registered trademark of Sound Devices, LLC.

Computer System Requirements

The requirements below outline the minimum configurations for systems using the USBPre 2. Software applications used with the USBPre 2 have their own requirements that may be in addition to the requirements of the USBPre 2. Consult your software's documentation.

Operating Systems

Windows XP (SP3), Windows Vista, Windows 7 (both 32 and 64 bit)
Macintosh OS 10.4 or greater
Linux Kernel 2.6.0 or greater (Requires standard ALSA snd-usb-audio module)

USB Connection

Full USB 1.1 or 2.0 compliance

For Notebook Computer users:

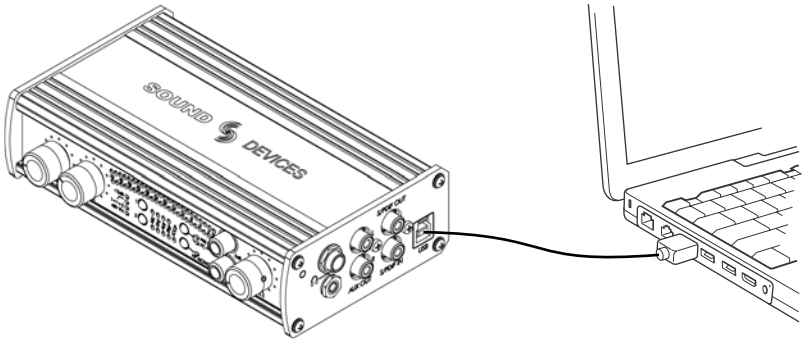
For proper operation of the USBPre, turn off all power management when using the USBPre for audio recording. Power management reduces processor speed, system bus speed, spins down hard disks, shuts down displays, or a combination of the above to reduce current consumption and extend battery run time. The change in state from active to power-saving mode can disrupt data on the USB bus and cause unintended dropouts.

Sound Devices cannot guarantee that a given computer can be used satisfactorily with the USBPre 2 based exclusively on the fact that it meets the above requirements.

Quick Start Guide

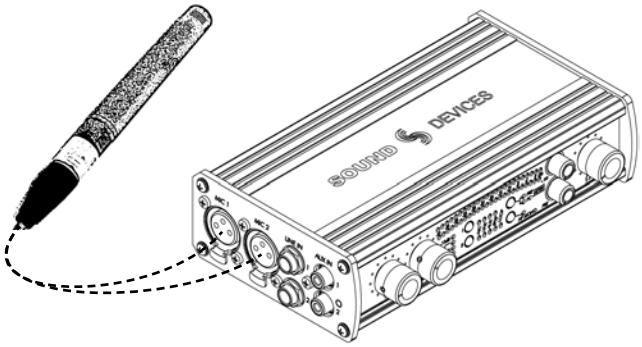
Sound Card Connection

1. Attach the "A" plug of the (supplied) USB cable into an available "A" socket on the computer. Attach the "B" plug of the USB cable into the "B" socket on the USBPre 2. The USBPre 2's meter LED's will illuminate sequentially, indicating the USBPre 2 is connected and booting up properly.

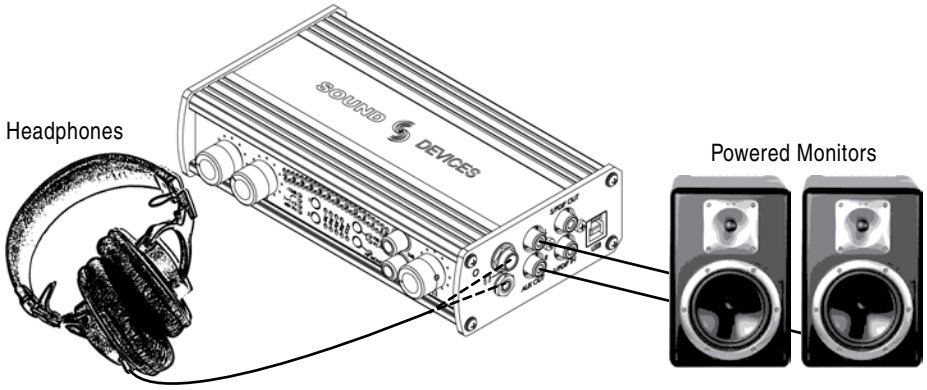


2. Check to see that the operating system has recognized the USBPre 2 and designated the USBPre 2 as the default sound card. *See Installation and Connection*.

3. Connect an audio source. *See Inputs*.

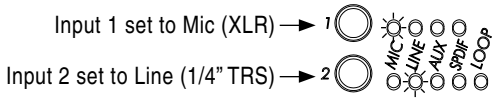


4. Connect headphones or other monitoring equipment.



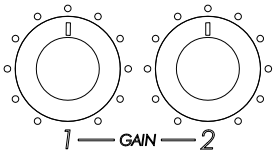
Powered monitors with balanced analog inputs can also be attached to the XLR outputs on the back panel of the USBPre 2.

5. Press the Input Select button repeatedly until the proper Input Source LED is illuminated for the input you will be recording.



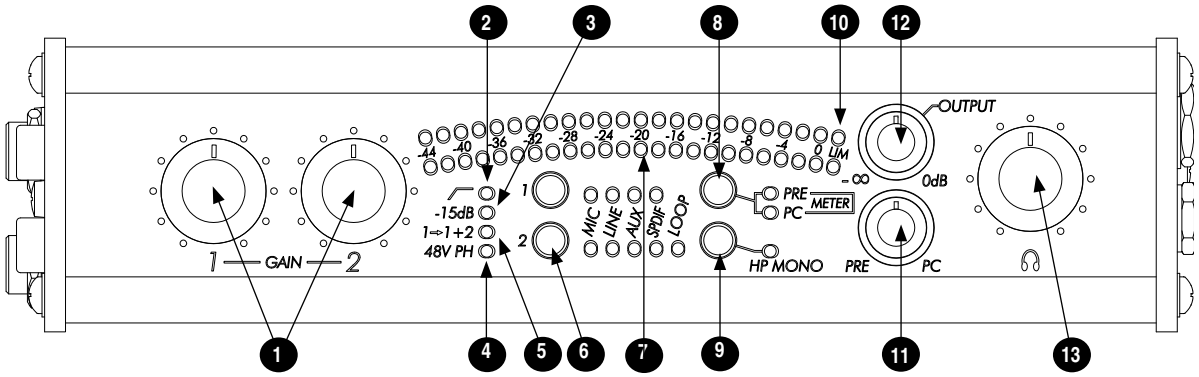
6. If the PRE Meter Source LED is not illuminated, press the Meter Source button to change the meter source to display input levels.

7. For analog input sources, adjust the Input Gain Control corresponding to the input being recorded. Input Gain Controls do not affect digital input levels. The meters will show the audio level of the input.



8. Launch an audio application on the computer. Make certain that the USBPre 2 is selected as the input and output device in the application's preferences. Consult the applications documentation for further information.

Front Panel Descriptions



1) **Input Gain Controls**
Adjusts input gain. Gain is minimized (not turned off) at full counter-clockwise setting. Gain control only affects analog input sources.

2) **Low-Cut LED**
Illuminates when low-cut filter is engaged on the inputs. *See DIP Switch Options*.

3) **15 dB pad LED**
Illuminates when 15 dB pad is engaged on the mic inputs. *See DIP Switch Options*.

4) **48V Phantom Power LED**
Illuminates when phantom power is engaged on the inputs. *See DIP Switch Options*.

5) **Input 1 Split LED**
Illuminates when Input 1 Split is active. *See DIP Switch Options*.

6) **Input Select Buttons and Input Source LED's**
Selects between the available input types. Input Source LED to the right will illuminate to indicate which source is currently active.

7) **Meter**
23-segment LED meter. Calibrated in dBFS, with peak + VU ballistics.

8) **Meter Source Button**
Switches meter source between input or output signal. LED illuminates to indicate current selection.

9) **Headphone Mono Button and LED**
Toggles between mono and stereo monitoring of analog input audio in headphones; especially useful when multitrack recording and recording from one input. LED illuminates when Mono is active. This function can be configured to affect PC Audio as well. *See DIP Switch Options*.

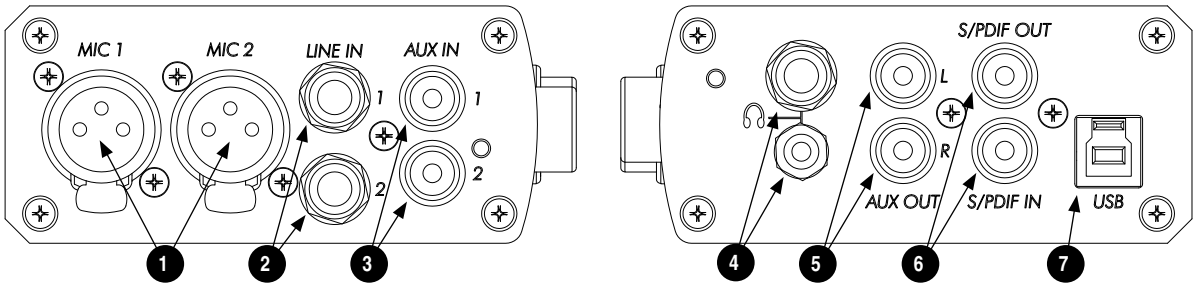
10) **Limiter LED's**
Illuminates amber when limiting is occuring.

11) **Monitor Mix Control**
Selects the signal source to be monitored in the headphones between analog source audio (PRE) and computer audio (PC). Listening to PRE audio allows zero latency monitoring of analog input sources. The center position mixes monitoring of both source and computer audio. The signal at the AUX Output and balanced XLR Output is unaffected by this control. *NOTE: S/PDIF digital inputs cannot be monitored in the headphones. S/PDIF signal can only be monitored after being processed by the computer.*

12) **Output Gain Control (Small Knob)**
Adjusts gain level of AUX Output and balanced XLR output. Can be configured to adjust headphone level. *See DIP Switch Options*.

13) **Headphone Volume Control (Big Knob)**
Adjusts headphone volume level. Can be configured to adjust XLR and AUX output levels. *See DIP Switch Options*.

Input and Output Panel Descriptions



1) **Mic Inputs**
Active-balanced XLR inputs accept low-impedance microphone-level signals.

2) **Line Inputs**
Accepts balanced line-level signals when the front panel switch is in LINE position.

3) **AUX Inputs**
Accepts consumer-level inputs such as CD Players, Camcorders, Portable DVD Players, and Mini-jack from computers via RCA connectors.

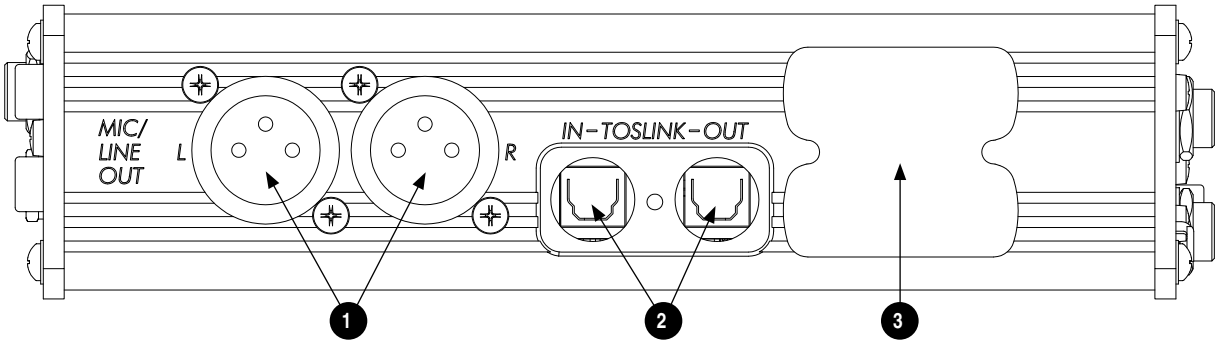
4) **Headphone Outputs**
3.5 mm and ¼-inch TRS stereo heaphone outputs can drive low-impedance headphones. *NOTE: The USBPre can drive headphones to dangerously loud levels - take caution when setting the headphone level.*

5) **AUX Output**
Audio output to feed powered loudspeakers, CD Recorders, Camcorders, or Portable DVD Recorders. RCA connectors. Computer audio only.

6) **S/PDIF (Coaxial) Input and Output**
Coaxial digital input and output connectors. Input is selected via the front panel input selection switch.

7) **USB Port**
USB B-type connector for interconnection with the computer; provides all data and power to the USBPre 2 via USB bus powering. USB 1.1 and 2.0 compliant.

Back Panel Descriptions



1) **Balanced XLR Outputs**
Active-balanced analog outputs. Mic / Line switchable. *See DIP Switch Options*.

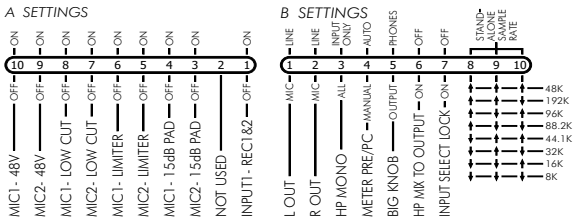
2) **S/PDIF (Optical) Input and Output**
Optical digital (TOSLINK) input and output connectors.

3) **DIP Switches**
DIP Switches to configure various aspects of the USBPre 2.

DIP Switch Options

The DIP switches on the back panel of the USBPre 2 can control various features. To adjust an individual switch, carefully move the switch with a slender tool.

In the following descriptions, "Up" refers to the direction ot the USBPre 2's top panel.



A Settings

- **48 Volt Phantom Power (9 and 10)**
  Up position engages 48 Volt phantom power on balanced microphone inputs. Required for condenser microphones. *See Inputs Section*.
- **Low-Cut Filter (7 and 8)**
  Up position engages low-cut filter on balanced microphone inputs. -12 dB per octave at 80 Hz. *See Inputs Section*.
- **Limiter (5 and 6)**
  Up position engages limiters on balanced microphone inputs. Attenuates signal above -4 dBu. *See Inputs Section*.
- **15 dB Pad (3 and 4)**
  Up position reduces gain by 15 dB on balanced microphone inputs. Useful for sensitive microphones or very loud program material. *See Inputs Section*.
- **Input 1 Split**
  Up position disables input 2 and routes input 1 signal to both tracks. This routing is pre-gain, so Input Gain Controls still affect the signal sent to each track.

B Settings

- **Balanced Output Level (1 and 2)**
  Determines level of balanced XLR outputs. Up position: Line level (0 dBu). Down position: Mic level. (-40 dBu). *See Outputs and Monitoring*.
- **HP Mono Function (3)**
  Adjusts what signals are summed when HP MONO is active. Up position: Input signals only. Down position: Input signals and output audio from the computer. *See Ouputs and Monitoring*.
- **Meter PRE/PC (4)**
  Adjusts whether or not the meter source switches automatically to PC metering when computer audio is present. Up position: Automatic. Down position: Manual. *See Ouputs and Monitoring*.
- **HP / Output Knob (5)**
  Adjusts which knob controls headphone gain and which knob controls main output gain. Up position: Big Knob controls headphone gain and Small Knob controls main output gain. Down position: Big Knob controls main output gain and Small Knob controls headphone gain.
- **Headphone Signal to Outputs (6)**
  Up position: Only computer audio is sent to outputs. Down position: Main output source is the same as headphone signal source and affected by Monitor Mix Control. *Note: In Stand-alone mode, input signal is always routed to the outputs and this setting has no effect.*
- **Input Select Lock (7)**
  Up position: Input Select Buttons function normally. Down position: Input Select Buttons are disabled and input source selection is locked.
- **Stand-Alone Sample Rate (8, 9, and 10)**
  Sets the operating sample rate when in Stand-Alone mode according to the associated diagram. *See Stand-Alone mode*. In Soundcard Mode, sample rate is determined by the computer. *See Installation and Connection*.

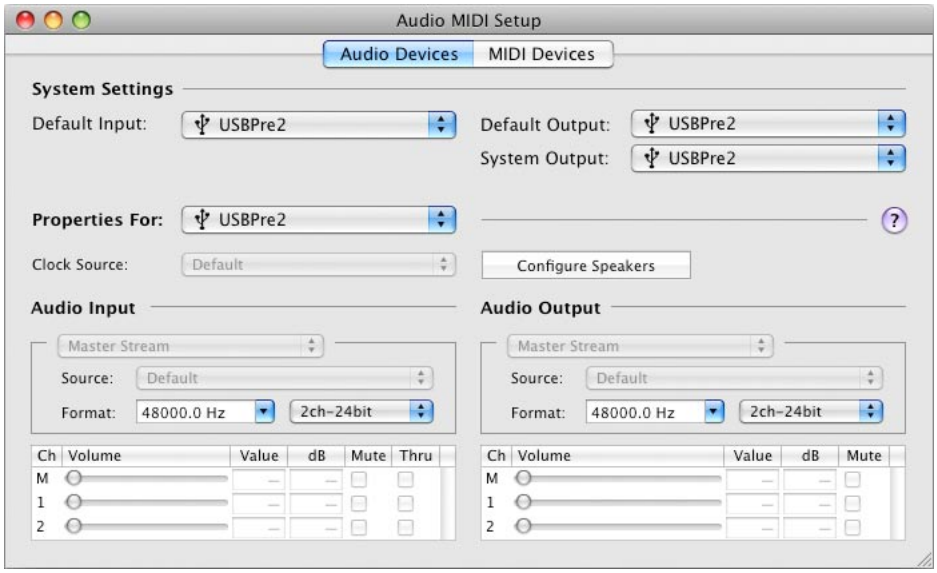
Mac OS Installation and Connection

Before connecting the USBPre 2, quit all open applications that use audio. An application that is running when the USBPre 2 is connected may not recognize the USBPre 2 until the application is restarted.

Screen shots show Mac OS 10.5

OS X Audio / MIDI Setup

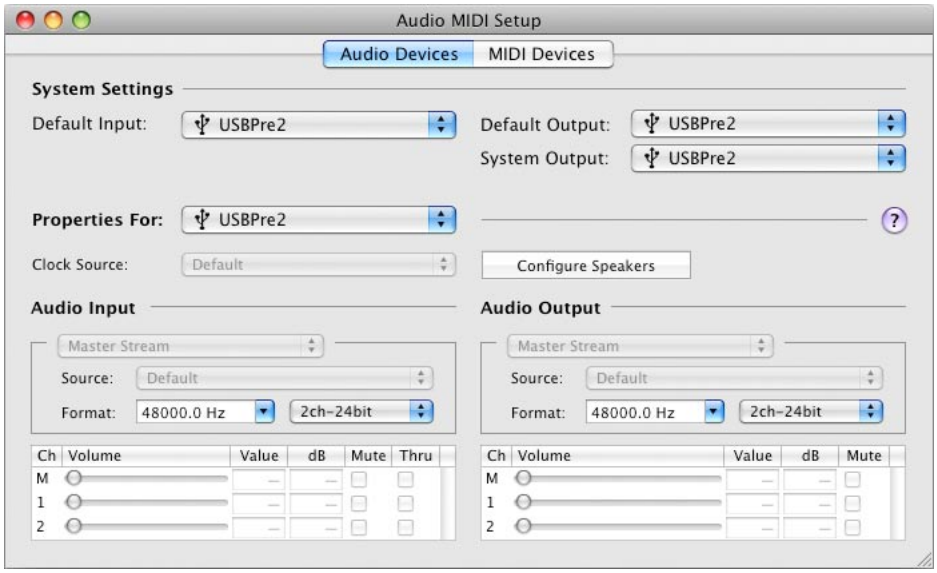
1. Follow ***Applications> Utilities> Audio MIDI Setup*** to open the ***Audio MIDI Setup*** dialog.



2. Ensure that the USBPre 2 is selected for both the ***Default Input*** dropdown menu and the ***Default Output*** dropdown menu in the ***System Settings*** section.

Adjusting Sample Rate in OS X

1. Follow ***Applications> Utilities> Audio MIDI Setup*** to open the Audio MIDI Setup dialog.



Features and specifications are subject to change. Visit www.sounddevices.com for the latest documentation.

2. Select the USBPre 2 from the ***Properties For*** dropdown menu, then set the sample rate, channel count, and bit depth as desired from the dropdown menus in the ***Audio Input*** section and the ***Audio Output*** section.

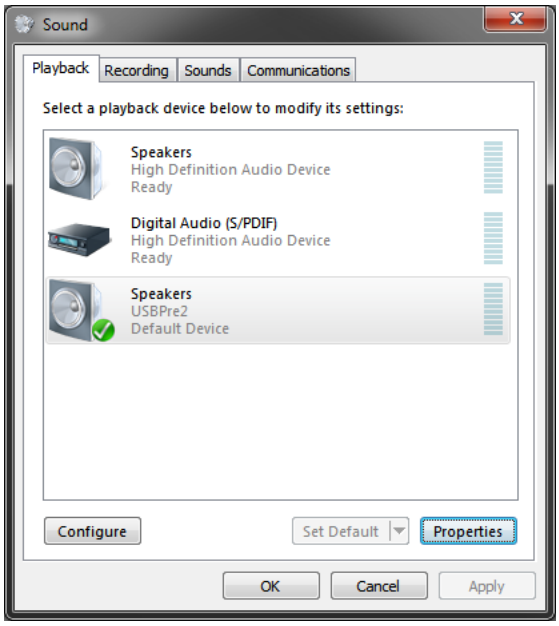
Windows Installation and Connection

The USBPre 2 is an Audio Device Class USB standard peripheral. No proprietary drivers are required to operate the USBPre 2 under Windows. The first time the USBPre 2 is plugged in, Windows will install standard USB Audio Device Class drivers automatically.

Before connecting the USBPre 2, quit all open applications that use audio. An application that is running when the USBPre 2 is connected may not recognize the USBPre 2 until the application is restarted.

Windows 7 and Vista Sound Control Panel

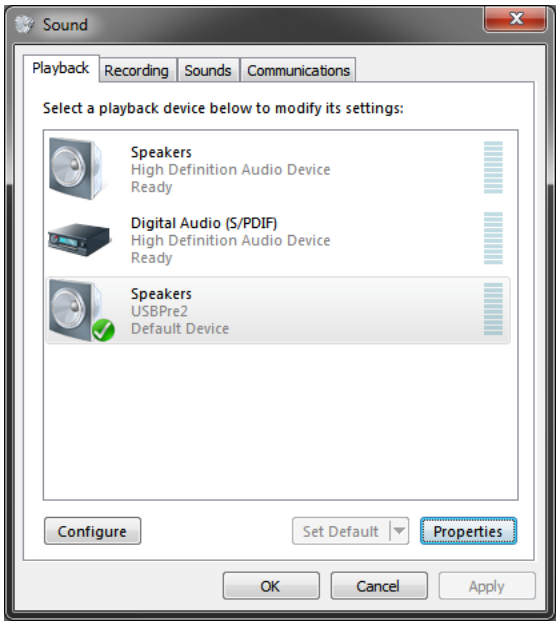
1. Follow ***Start> Control Panel> Sound***.



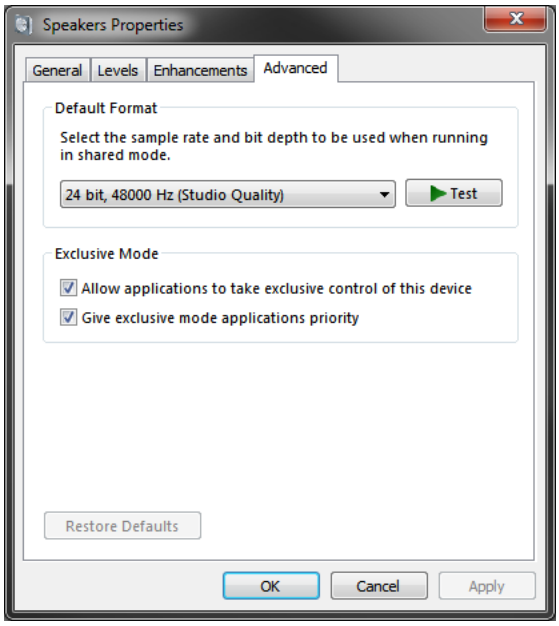
2. Click the ***Playback*** tab.
3. Click to select the item labeled "USBPre2" in the list of devices.
4. Click the ***Set Default*** button. A green check mark icon will appear next the the USBPre 2 entry and the phrase "Default Device" will appear below the entry, indicating that the USBPre 2 is now the default playback device.
5. Click the ***Recording*** tab and repeat and repeat steps 3 and 4 to make the USBPre 2 the default recording device.

Adjusting Sample Rate in Windows 7 and Vista

1. Follow ***Start> Control Panel> Sound***.
2. Click the ***Playback*** tab. Highlight (Single click) the entry labeled "USBPre2" and then Click the ***Properties*** button.

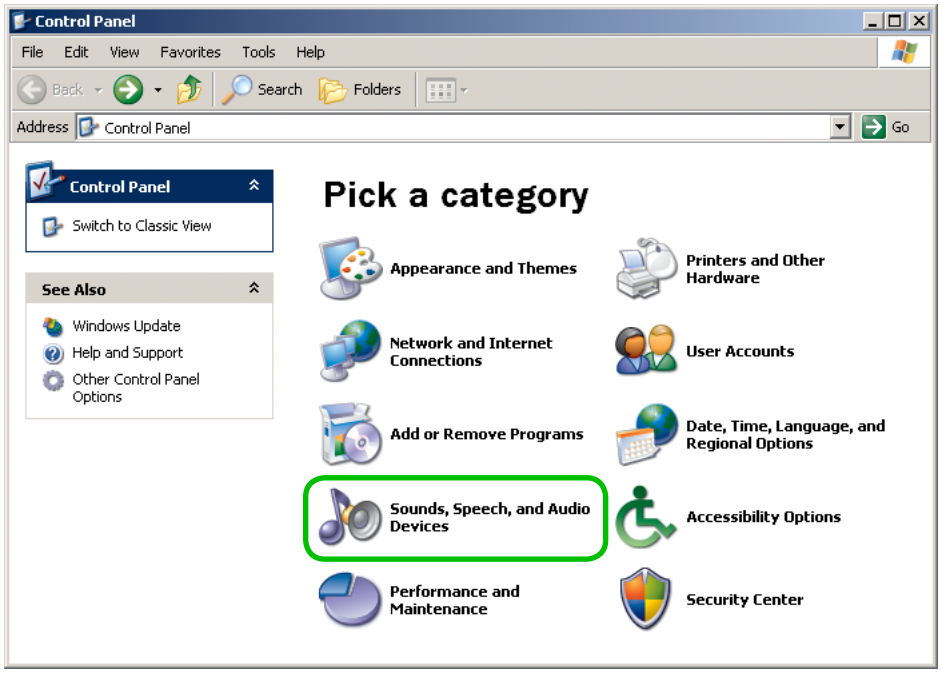


3. Click the ***Advanced*** tab. Select the desired bit depth and sample rate from the dropdown menu.

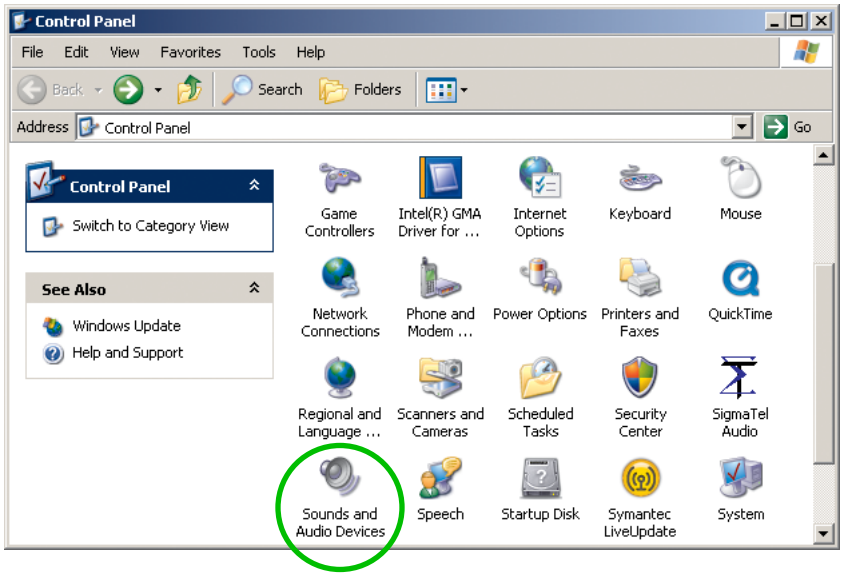


Windows XP Sound Control Panel

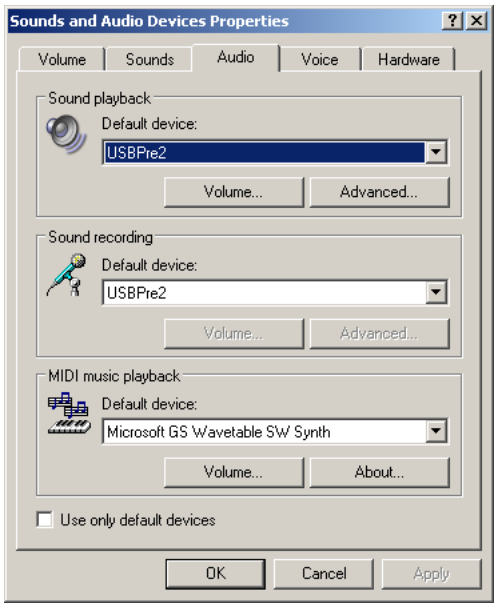
1. Follow ***Start> Control Panel***. The control panel view will be be in either "Classic view" or "Category view".
2. Category view. If this view is visible, click ***Sounds, Speech, and Audio Devices***, then click ***Sounds and Audio Devices***. Skip to step number 4.



3. Classic view. If this view is visible, click *Sounds and Audio Devices*.



4. Click the ***Audio*** tab. Select the USBPre 2 from the ***Default device*** dropdown menu in the ***Sound playback*** section. Select the USBPre 2 from the ***Default device*** dropdown menu in the ***Sound recording*** section.



Inputs

Input Source Selection

The USBPre 2 has two available input channels. The source for each input is independently selected using the Input Select Buttons on the front panel. The selected source is indicated by an illuminated LED next the the respective Input Select Button. The Input Select Buttons can be locked to prevent accidental switching of the input sources. *See DIP Switch Options*.

Microphone Inputs

Phantom Power

The USBPre 2 provides 48-volt phantom power for condenser microphones connected to the XLR inputs. Phantom power can be engaged independently for each input. *See DIP Switch Options*. Condenser microphones that can operate on phantom voltages from 11-52 volts will function properly with 48-volt phantom.

Dynamic microphones typically do not require phantom power. A properly connected balanced, dynamic microphone is not affected by the presence of phantom power nor will it draw any current. However, it is good practice to turn phantom power off when not needed. Poor or incorrectly wired microphone cable can cause audible artifacts in microphone signals. Some wireless receivers outputs are adversely affected by the presence of phantom power, therefore, consult the wireless receiver documentation.

Low-Cut Filter

The low-cut filter attenuates low frequecy signals. This is useful in conditions where low frequency signal is causing overload before the desired gain is reached (windy environments or handheld microphones, for example).

Input Pad

With some combinations of microphone sensitivity and sound pressure levels, the microphone input of the USBPre 2 can become overloaded even when the input gain is at its lowest level. A 15 dB pad can be engaged on the microphone input to reduce its sensitivity. *See DIP Switch Options*.

Input Limiters

In environments where high sound pressure levels may occur unexpectedly, input limiting prevents distortion by attenuating signals that surpass the input threshold level. In normal operation with properly set input levels, the threshold of an input limiter is rarely reached. Signals below the threshold are not affected by the limiter. Limiters can be engaged on each microphone input independently. *See DIP Switch Options*. The amber LIM LED's on the right side of the meters will illuminate to indicate when limiting is occurring.

Line Inputs

The Line Inputs use balanced, quarter-inch connectors and accept +4 dBu analog signal (sometimes referred to as "Professional" line level). Wiring is tip: signal (+), ring: signal (-), and sleeve: ground.

Aux Inputs

The Aux Inputs use unbalanced, RCA connectors and accept -10 dBu analog signal (sometimes referred to as "Consumer" line level). This input is designed for signal from CD players, camcorders, portable DVD players, and other similar devices.

Signal output from turntables without built-in phono preamplifiers is too weak for the USBPre 2's Aux Inputs. A separate phono preamplifier may be required depending on the design of the turntable.

Digital Inputs

Digital signal in the S/PDIF format can be input to either the coaxial RCA connector or the optical TOSLINK connector. If signal is present at both the optical and coaxial input, the signal from the optical input takes precedence.

Sample rates below 32 kHz are not supported on the digital connections. The optical connections do not support the 192 kHz sampling rate.

Loop Source (Input 2)

Input 2 has an additional source labeled LOOP. This input source does not correspond to any physical connections on the USBPre 2. When LOOP is selected, input 2's source is derived from the left channel of the computer audio signal. The input 2 Gain Control affects signal The Output Gain Control does not affect the level of the signal going in to input 2.

The LOOP source is useful for test and measurement applications where a reference signal is required to be routed back to an input.

Outputs and Monitoring

Headphone Output

The USBPre 2 has a high current headphone amplifier for monitoring analog input audio, computer audio, or a mix of both. The Headphone Volume Control adjusts the level of the signal to the headphones. The Headphone Volume Control knob and the Output Gain Control knob can be swapped with the back panel DIP Switches. *See DIP Switch Options*.

Caution: The USBPre 2 is capable of driving headphones to dangerously high levels. Be aware of headphone level controls at all times.

Use the Monitor Mix Control on the front panel to adjust the mix between direct audio from the inputs (fully counter-clockwise) and output audio from the computer (fully clockwise). The signal for input audio is derived from the inputs before analog-to-digital conversion.

Headphone Mono mode sums the input signals from both inputs into a mono mix for the headphones. To toggle Headphone Mono mode, push the Headphone Mono button on the front panel. The Headphone Mono LED will illuminate when Headphone Mono mode is active. Optionally, the stereo signal from the computer can also be summed when Headphone Mono mode is engaged. *See DIP Switch Options*.

Main Outputs

Signal level at the balanced XLR outputs and unbalanced AUX outputs is adjusted with the Output Gain Control. The signal source for the outputs is the output audio from the computer. This source can be changed to the same source as the headphone output with the back panel DIP Switches. The balanced XLR outputs are set to line level by default and can be set to mic level with the back panel DIP switches. *See DIP Switch Options*.

The Windows Volume Control (controlled with the "speaker" icon in the system tray) and the Mac volume control affect the level of the computer's output audio before it reaches the USBPre. It is generally best practice to set the volume control to 100% and make adjustments to the output level with the USBPre 2's Output Gain Control.

Digital Outputs

When the USBPre 2 is used as a computer audio interface, the sample rate of the digital outputs (Coaxial S/PDIF and optical TOSLINK) is determined by the application settings on the computer. In Stand-alone mode, the sample rate is determined by the position of the back panel DIP switches.

Optical (TOSLINK) outputs are inoperable at 192 kHz sample rate.

Metering

The USBPre 2 features a 23-segment, 2 channel LED meter. The meter displays both the peak level of source audio and average (VU) levels simultaneously. 0 dB on the meter is calibrated to 0 dBFS signal coming from the computer.

The current source signal for the meter is indicated by an illuminated LED next the Meter Source Button. The meter source can be toggled by pushing the Meter Source Button. When the meter

source is set to PC the meter displays the audio level for signal coming from the computer. In this mode, the top row of the meter displays the left channel level and the bottom row displays the right channel level. When the meter source is set to PRE, the meter displays the audio level for signal at the active inputs.In this mode, the top row of the meter displays the level for the selected input source on channel one and the bottom row displays the level for the selected input source on channel 2.

The meter source switches from PRE to PC automatically when signal is output from the computer. This behavior can be defeated so that the source is switched manually. *See DIP Switch Options*.

Stand-Alone Mode

In Stand-Alone mode, the USBPre 2 operates as a microphone preamplifier with both digital and analog outputs. It can also accept digital signals and output analog audio. The USBPre 2 will automatically enter stand-alone mode when connected to a USB jack supplying USB power (5V, 500 mA max) but is not associated with a running operating system (For example, a powered USB hub that is not attached to a computer). The USBPre 2 can be forced into Stand-alone mode when connected to a computer supplying USB power by holding down the Meter Source button when attaching the USB cable.

In Stand-Alone mode all front panel controls perform the same functions as when the USBPre 2 is in Interface mode, except that the Meter Source button is disabled and the meter mode is locked to PRE. Since there is no reference clock from the computer, the operating sample rate is set using the back panel DIP Switches. *See DIP Switch Options*.

Sample Rate

In Stand-alone mode, word clock is generated by the USBPre 2's internal word clock generator, and the Sample rate is set by adjusting the DIP switches on the back panel of the USBPre 2. *See DIP Switch Options*. This will affect the internal sample rate of the USBPre 2 as well as the sample rate output from the digital outputs.

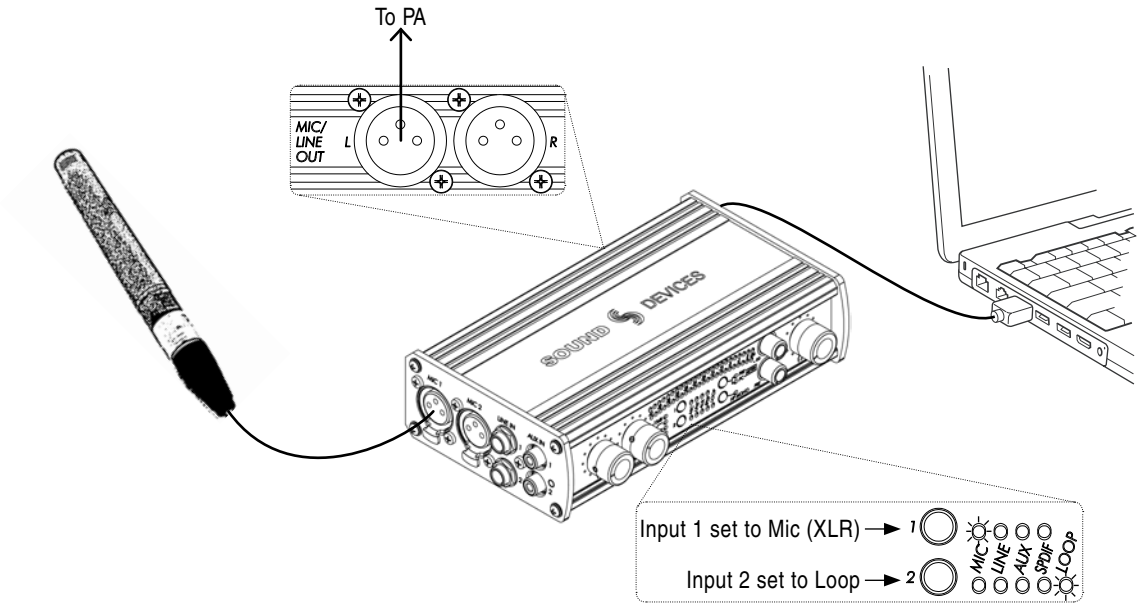
Sample rates below 32 kHz are not supported on the coaxial or optical (TOSLINK) digital interconnections. 192 kHz sampling rate is not supported on the TOSLINK interconnections.

In Interface mode, the USBPre 2 operates at the sample rate set from the host operating system and the DIP switches related to sample rate are ignored. It is further possible to change the sampling rate of the USBPre 2 within some applications' audio preferences. In Windows XP there is no global sample setting, and the sample rate must be set by the application in use.

Setup Examples

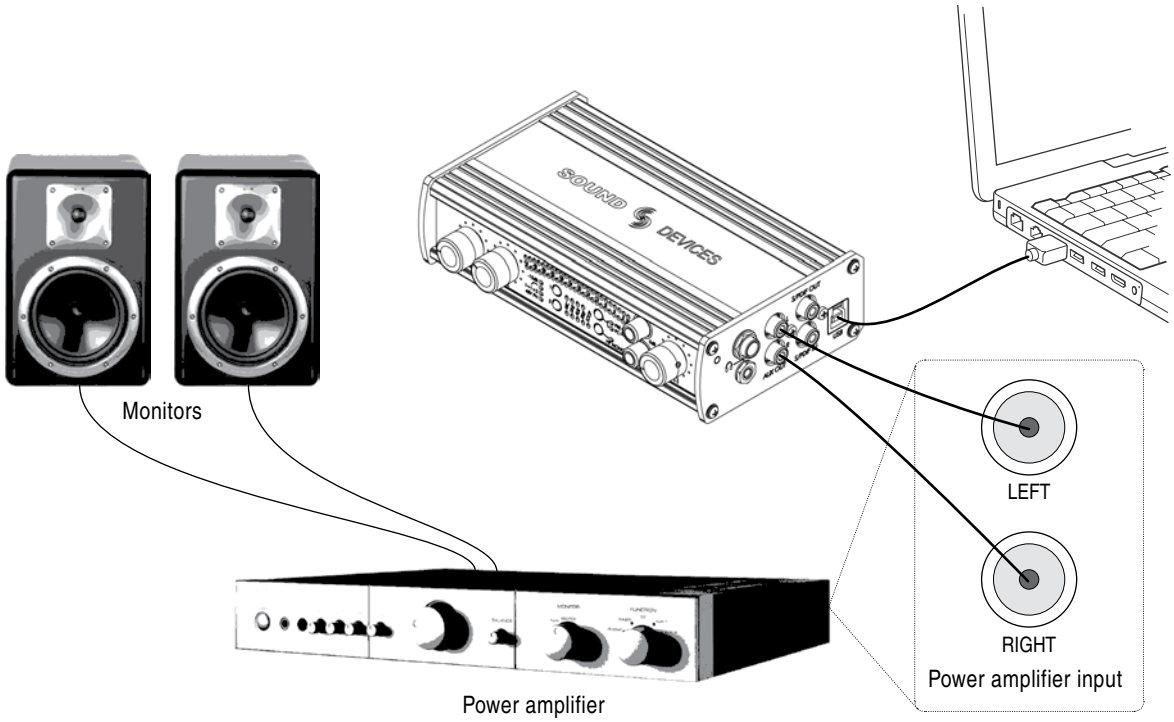
Test and Measurement

The high quality preamplifiers and portability of the USBPre 2 make it a perfect interface for test and measurement applications. A requirement for measuring a transfer function is the ability to monitor the output reference signal from the computer. The LOOP source of input 2 enables a copy of the computer audio left channel to be internally routed to input 2. This allows reference signal to be sent back into the measurement application without additional cabling.

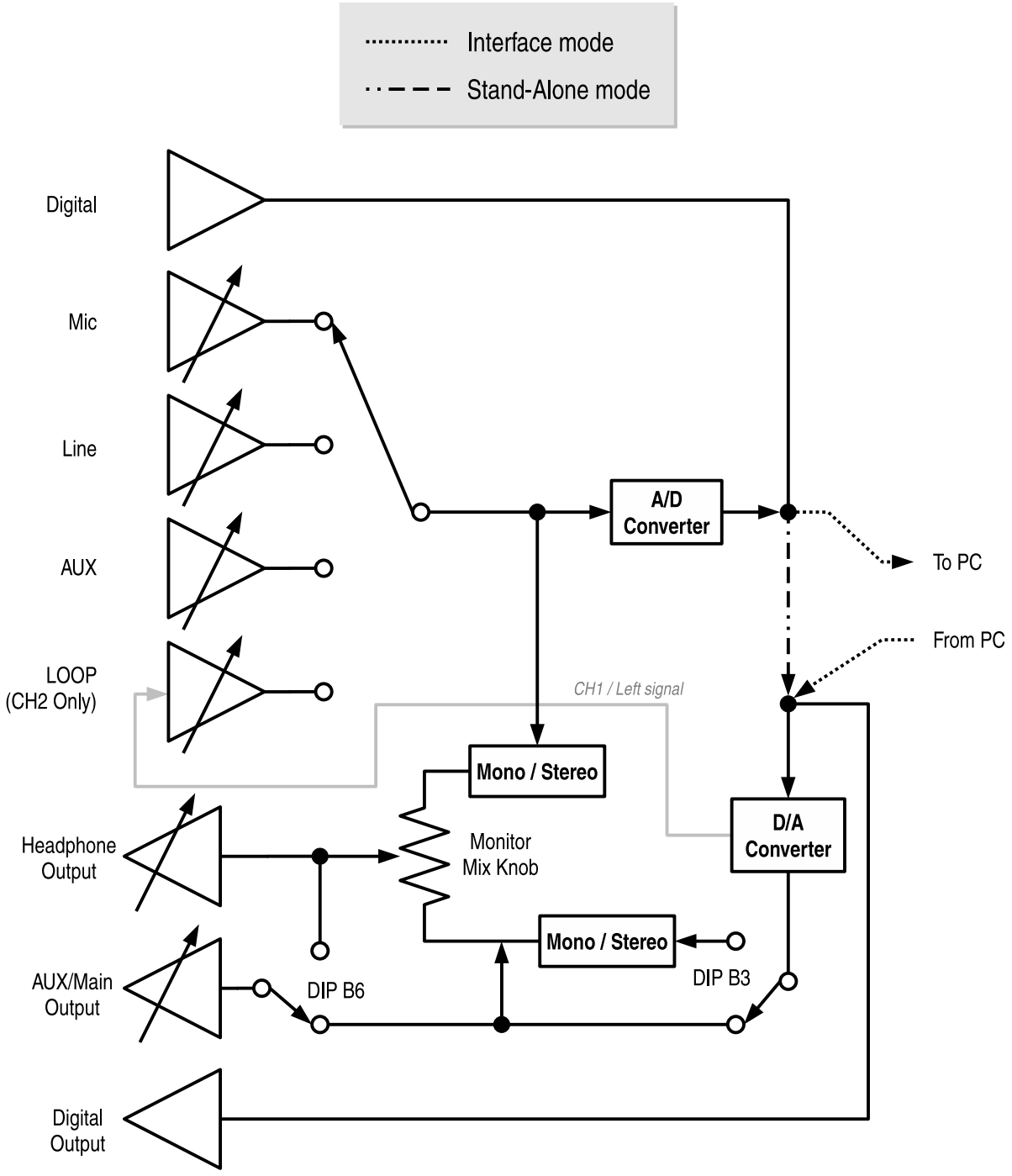


High Performance Playback

The USBPre 2 can provide high-quality audio output from a computer to reference monitors in a studio control room or a home stereo system. Depending on the connectivity of the monitors, the balanced XLR outputs, unbalanced RCA outputs, or digital S/PDIF outputs can be used to send computer audio to the monitors.



Block Diagram



Features and specifications are subject to change. Visit www.sounddevices.com for the latest documentation.

Specifications

Frequency Response (reference 1 kHz, at 96 kHz Sample Rate)	• 10 Hz - 40 kHz, +/- 0.5 dB (any input to PC recording) • 10 Hz - 40 kHz, +/- 0.5 dB (PC source to AUX output)
THD+N (22 Hz - 22 kHz measurement bandwidth)	• 0.05% max (any input to PC recording, gain control at min, input driven to -6 dB FS) • 0.009% max (AUX output, 0 dB V output, 100 ohm load) • 0.05% max (HEADPHONES output, 2 V rms output, 600 ohm load)
E.I.N. (MIC inputs)	• -127 dBu min (22 Hz - 22 kHz bandwidth, 150 ohm source, gain control fully clockwise, 15 dB pad out)
Input Clipping Level (1% THD)	• Mic: -10 dBu • Mic (15 dB pad): +4 dBu • Line: +28 dBu (19.45 V rms) • Aux: +9 dBu (2.18 V rms)
Input Sensitivity (typical, for 0 dB FS)	• Mic: -9 dBu min, -60 dBu max • Mic (15 dB pad): +6 dBu min, -58 dBu max • Line: +29 dBu min, +10 dBu max • Aux: +12 dBu min, -7 dBu max.
Input Impedance (actual)	• Mic: 4k ohm, active-balanced • Mic (15 dB pad): 4k ohm, active-balanced • Line: 60k ohm, active-balanced • Aux: 80k ohm, active-balanced
Input Limiter Threshold	• Mic: -4 dBFS
Low Cut	• Mic: 80 Hz, -3 dB, 12 dB per octave
Output Clipping Level (1% THD, PC-controlled output levels at max)	• Balanced XLR: +18 dBu with 100k ohm load • Aux: +8 dBu (2.0 V rms) with 100k ohm load • Headphones: +11 dBu (2.75 V rms) with 600 ohm load
Output Impedance	• Balanced XLR (Line level): 500 ohms • Balanced XLR (Mic level): 5 ohms • Aux: 660 ohms
S/PDIF Digital	• 24 or 16 bit input
A/D Converter	• 24-bit resolution. 114 dB typical dynamic range (22 Hz - 22 kHz bandwidth, A-weighted)
D/A Converter	• 24-bit resolution. 112 dB typical dynamic range (22 Hz - 22 kHz bandwidth, A-weighted)
Sample Rates / Bit Depths	• Recording: 8, 16, or 24-bit at 8, 16, 32, 44.1, 48, 96, or 192 kHz • Playback: 24-bit at 8, 16, 32, 44.1, 48, 96, or 192 kHz
Master Clock	• Crystal based, low jitter
Metering	• 2 x 23 segments, 44 dB total range, peak ballistics. 0 dB on meter = 0 dB FS (0 dB referenced to full scale digital)
Phantom Power	• 48 V through 6.8k ohm resistors. Each mic input will supply 10 mA
Powering	• USB bus powered, soft-start meets USB hot-plugging power requirements (5 V, 100 mA max current drawn during enumeration) • 5 V (+/- 10%, 500 mA max current from USB port (USBPre 2 will not function if connected through a passive USB connection or hub)
Dimensions (unpackaged)	• 4.3 cm x 18 cm x 10 cm (H x W x D) • 1.7 in. x 7.25 in. x 4.25 in. (H x W x D)
Weight	• 0.5 kg • 1.13 lbs.
Certifications	• Meets FCC Part 15 Class B • Complies with the Requirements of European Directive 89/336/EEC
Included Accessories	• USB Cable • Rubber Feet

Warranty and Technical Support

Warranty & Service

Sound Devices, LLC warrants the USBPre 2 against defects in materials and workmanship for a period of ONE (1) year from date of original retail purchase. This is a non-transferable warranty that extends only to the original purchaser. Sound Devices, LLC will repair or replace the product at its discretion at no charge. Warranty claims due to severe service conditions will be addressed on an individual basis. THE WARRANTY AND REMEDIES SET FORTH ABOVE ARE EXCLUSIVE. SOUND DEVICES, LLC DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. SOUND DEVICES, LLC IS NOT RESPONSIBLE FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES ARISING FROM ANY BREACH OF WARRANTY OR UNDER ANY OTHER LEGAL THEORY. Because some jurisdictions do not permit the exclusion or limitations set forth above, they may not apply in all cases.

For all service, including warranty repair, please **contact Sound Devices for an RMA** (return merchandise authorization) before sending your unit in for repair. Product returned without an RMA number may experience delays in repair. When sending a unit for repair, *please do not include accessories, including carry cases, cables, or adapters unless instructed by Sound Devices*.

Sound Devices, LLC
Service Repair RMA #XXXXX
300 Wengel Drive
Reedsburg, WI 53959 USA
telephone: (608) 524-0625

Technical Support / Bug Reports

For technical support and bug reporting on all Sound Devices products contact:

Sound Devices, LLC
E-mail: support@sounddevices.com
web: www.sounddevices.com/support
Telephone: +1 (608) 524-0625 / Toll-Free in the U.S.A.: (800) 505-0625
Fax: +1 (608) 524-0655

Features and specifications are subject to change. Visit www.sounddevices.com for the latest documentation.